

Thickness Gauges

SERIES 547, 7

Thickness Gauges offer a quick and efficient means of inspection with their convenient grip handle, thumb trigger and spring-loaded spindle. The various models cover a wide range of applications.

FEATURES

- Wide range of applications with various types of measuring faces (on the spindle and anvil).

- The digital models incorporate Mitutoyo's popular ID-C and ID-S Series Digimatic Indicators to provide error-free LCD readings as well as data output for SPC analysis.
- **547-401 (547-400S)** is ideally suited for measuring thicknesses of paper, film, wire, sheet metal and similar materials.

Standard Type / Digital



Deep Throat Type / Digital



Standard Type / Dial



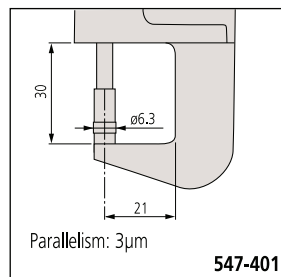
Deep Throat Type / Dial



High Accuracy Type / Digital



DIMENSIONS



SPC

ABSOLUTE[®]
Absolute System Patented by MITUTOYO

(Refer to page IV for details.)

Technical Data of Digital Models

Accuracy: Refer to the list of specifications (excluding quantizing error)

Resolution:

0.01mm type	0.01mm
0.001mm type	0.001mm/0.001mm
.0005"/0.01mm type	.0005"/0.01mm
.00005"/0.001mm type	.0005"/.0001"/.00005"/0.01mm/0.001mm

Display: LCD

Scale type: ABSOLUTE electrostatic linear encoder

Max. response speed: Unlimited

Measuring force: Refer to the list of specifications

Stem dia.: 8mm (ISO/JIS type) or 3/8" (ANSI/AGD type)

Battery: SR44 (1 pc.), **938882**

Battery life: Approx. 7,000 hours under normal use

Dust/Water protection level: IP42 or IP53 (dust-proof type)

Functions of Digital Models

Origin-set/Preset, Zeroset, GO/ \pm NG judgement, Counting direction switching, Power ON/OFF, Simplified calculation, Function lock, Data hold, Data output, inch/mm conversion (inch/mm models)

Alarm: Low voltage, Counting value composition error, Overflow error, Tolerance limit setting error

Optional Accessories

905338: SPC cable (1m) for digital models

905409: SPC cable (2m) for digital models

02AZD790F: SPC cable for U-WAVE (160mm)

902011: Spindle lifting lever (ISO/JIS type)*

902794: Spindle lifting lever (ANSI/AGD type)*

137693: Spindle lifting hook**

540774: Spindle lifting cable

125317: Spare rubber boot (for dust-proof type)

02ACA571: Auxiliary spindle spring for 25mm/1" models***

02ACA773: Auxiliary spindle spring for 50mm/2" models***

—: Backs (See page F-40.)

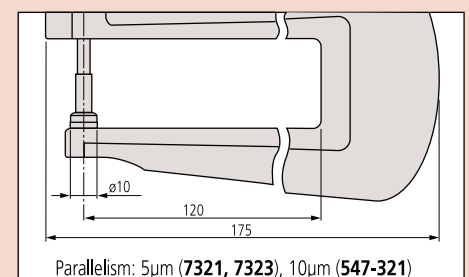
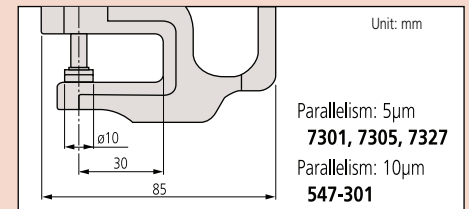
—: Contact points (See page F-36.)

*Can be used on 12mm/.5" models only.

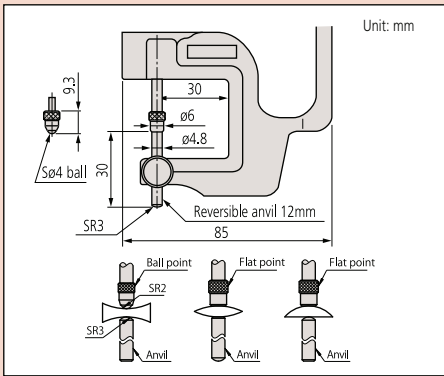
**Can be used on 25mm/1" or 50mm/2" models.

***Required when orienting the indicator upside down.

DIMENSIONS



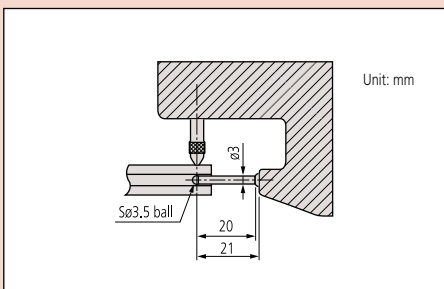
DIMENSIONS



Lens thickness measurement



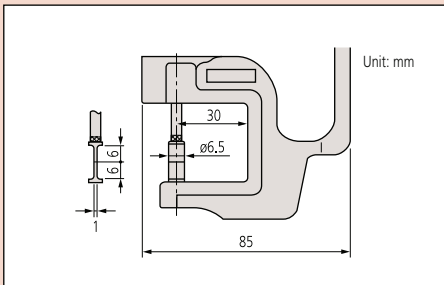
DIMENSIONS



Tube thickness measurement



DIMENSIONS



Groove depth measurement



SPECIFICATIONS

Metric	Digital Type
Range	Order No. Resolution
0 - 12mm	547-401 0.001mm
0 - 10mm	547-301 0.01mm
0 - 10mm	547-321 0.01mm
0 - 10mm	547-313 0.01mm
0 - 10mm	547-315 0.01mm
0 - 10mm	547-360 0.01mm

Inch/Metric	Digital Type	Accuracy	Measuring force	Remarks
Range	Order No. Resolution			
0 - .47"	547-400S / .00005"/0.001mm	±3µm	3.5N or less	High accuracy, carbide spindle/anvil
0 - .4" / 0 - .47"*	547-300S / 547-500* .0005"/0.01mm	±20µm	1.5N or less	Standard, ceramic spindle/anvil
0 - .4" / 0 - .47"*	547-320S / 547-520* .0005"/0.01mm	±20µm	1.5N or less	Deep throat, ceramic spindle/anvil
0 - .4" / 0 - .47"*	547-312S / 547-512* .0005"/0.01mm	±20µm	1.5N or less	Lens thickness
0 - .4" / 0 - .47"*	547-316S / 547-516* .0005"/0.01mm	±20µm	1.5N or less	Groove depth
0 - .4" / 0 - .47"*	547-361S / 547-561* .0005"/0.01mm	±20µm	1.5N or less	Tube thickness

*using ID-S Digimatic indicator, Standard model with .0001"/0.001mm resolution ID-S is available (**547-526**).

Metric	Dial Type
Range	Order No. Dial reading
0 - 1mm	7327 0.001mm
0 - 10mm	7301 0.01mm
0 - 20mm	7305 0.01mm
0 - 10mm	7321 0.01mm
0 - 20mm	7323 0.01mm
0 - 10mm	7313 0.01mm
0 - 10mm	7315 0.01mm
0 - 10mm	7360 0.01mm

Inch	Dial Type	Accuracy	Measuring force	Remarks
Range	Order No. Dial reading			
0 - .05"	7326S .00005"	±5µm	1.4N or less	Fine dial reading, ceramic spindle/anvil
0 - .5"	7300S .001"	±15µm	1.4N or less	Standard, ceramic spindle/anvil
0 - 1"	7304S .001"	±20µm	2.0N or less	Standard, ceramic spindle/anvil
—	—	±15µm	1.4N or less	Deep throat, ceramic spindle/anvil
0 - 1"	7322S .001"	±22µm	2.0N or less	Deep throat, ceramic spindle/anvil
0 - .5"	7312S .001"	±15µm	1.4N or less	Lens thickness
0 - .5"	7316S .001"	±15µm	1.4N or less	Groove depth
0 - .5"	7361S .001"	±15µm	1.4N or less	Tube thickness